F21DV Individual Report

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Personal Reflection

Even though we did not elect a group leader as written in the coursework specification, I felt like my contribution role was in a similar vain. During our meetings I would propose most of the ideas and was lucky enough to have them adopted quite easily. I proposed the initial design and did a good portion of the EDA and came up with an implementation plan. When it came to implementation and sticking to that plan, I helped out members who struggled and ended up developing a good portion of the final product as a result.

Contribution

I set up the basic HTML structure for the dashboard and added CSS style as well. I also loaded the data and broke it into subsets by country. We initially planned to have a static dashboard showing a map of the UK with museums on it, summary statistics, charts and a randomly selected museum by the 19/03 as a midpoint. I was to implement the summary charts, which were to then be extended to update according to the user selection.

However, when a week after this deadline, the rest of the dashboard was not completed I ended up finishing it as well. I also added functionality to load different maps by nation and tied the maps to their data subsets, however another member implemented the actual drop-down menu.

Groupwork

We divided tasks so we can work independently and advance the project within the limited time we had on our hands. We broke our implementation into two stages – base dashboard and added interactivity, however with deadlines being missed we ended up producing something satisfactory but far from our initial design.

I personally needed time to adapt to using the developer console and element inspector when debugging JavaScript in combination with CSS. I also had no prior experience with either language. That is why I applied mainly what I learned doing the labs to complete this dashboard. I remember struggling initially in the beginning of the course and some people were struggling with their tasks for this project which hindered our performance.

We also had an issue where a member commited code to the main remote branch of the repository which broke our functioning map. This was a good opportunity for me to learn how to use git commands to revert to an old version of the codebase.

The dashboard we produced in the end is simple but quite informative. It has loads of potential for future development and I will list a few possibilities next.

Dashboard Analysis

Our design was intended as an exploratory tool for museum governance and finance bodies. It generally succeeds at that with some limitations. The user is presented with a map of museums around the UK and can easily navigate around the islands. They also can select a museum to inspect general information about it and the museums in its immediate vicinity.

The final product fits the standard dashboard definition of it being confined to a single page, present data in multiple views and include responsive interactions. It incorporates a grid design with the left half showing the main map view and the small multiples summary charts taking place in the centre-right. These can provide insights at-a-glance, better than text, so are positioned at high-priority screen real estate.

It fails, however, to meet its original strategic purpose and is currently purely communicational. To be able to make informed decisions based on knowledge obtained with the tool we need to explore more facets of the data.

To begin with, we originally planned for different types of museums to be visualised on the map depending on a user applied filter. We can filter on subject as well and introduce bidirectional interactions by highlighting museums of a certain subject when hovered over the bar chart and vice versa.

We can split the data on functioning and closed museums, something that currently is only summarised in total values at the top. This combined, more importantly, with the unused demographic geo-data and with the possible integration of other demographic or economic dataset can provide crucial information that can help in a decision-making process.

There is also the current issue of clutter. Marks on the map give a good indication of the geographical spread of museums, but when it comes to London for example, with nearly 200 marks situated over a few sq. pixels, it is impossible to make a purposeful selection and the city hosts some the biggest and most important museums of the UK. To resolve this a local regional map can be introduced for London only. Also, the difference in administrative structure from country to country allows for even a further breakdown of the English subset, which is only natural, given the population proportions.

Finally, the size of the marks on the map can be used to indicate the number of yearly visits and when viewing the UK at the highest zoom level, data could be clustered together to show summary statistics in a glyph map over separate regions of the UK all in one view.